

Kennedy Space Center

**Applied Technology Directorate
(KT)**

Charles M. Clancy
June 4th – August 10th

**Applied Technology Directorate
(KT)**

Main Objective

- Applied Technology (KT) provides innovative technical solutions to ground and surface operations problems and develops technology to reduce life cycle costs and address safety concerns.

Planning and Operations Branch

Maria Lopez-Tellado

Objective:

- To effectively perform Technology Planning and Budget & Resource Management.
- To Manage Operations, Workforce, and Information Technology (IT) for the Directorate (KT).

Definitions and Acronyms

Deliverables- Product of service requested by customer.

Cost- Includes all labor, materials, and equipment required to deliver a product or service.

Schedule- The time allowed for delivery or products or services.

FTE- Full-time equivalent.

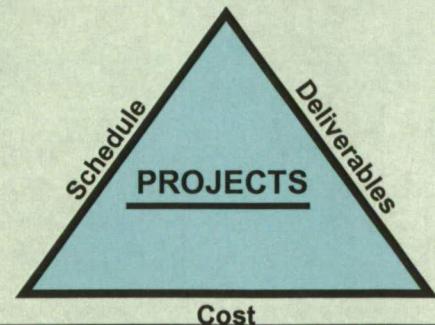
(Civil servants)

WYE- Work year equivalent.

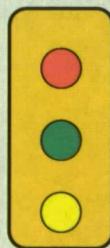
(Contractors)

NOA- New Obligation authority

OBG- Obligation



Stop Light Chart



Used to quickly show the progress of a project and informs Project Managers of the status of each aspect of a project.

Technology Programs and Partnerships Branch

Dave Makufka

Innovative Partnerships Program Office

Objective

- Provide leveraged technology alternatives for Mission Directorates, Programs, and Projects through joint partnerships with industry, academia, government agencies and national laboratories.
- Two way to solicit Partnerships are: Seed Fund Call for Proposals and TecFusion Forums.

Seed Fund Call for Proposals

- Established to enhance NASA's ability to meet Mission capability goals by providing leveraged funding to address technology barriers via cost-shared, joint-development partnerships.
- Purpose of proposal
 - Identify proposed scope of work, cost, customer(s), and participants involved. Proposals should be in response to the specific solicited call.

Quad Charts

- A specifically formatted high level overview draft that is to be submitted before the actual proposal to show a detailed plan of Technical Goals and Objective, Mission Directorate Relevance, Team Members and Affiliates, and Resources. Quad charts are designed to illustrate a brief proposal.

Quad Charts

NOI - Quad Chart Template

Technical Goals and Objectives	Mission Directorate Relevance
<u>Key Deliverable(s)</u> <u>Critical Project Milestones:</u> <u>Primary Technical Hurdles:</u> <u>Follow-on Development/ Exit Strategy:</u>	<u>Program/Project Supported:</u> <u>Technology Focus Areas:</u> <u>Outline of ROI:</u>
Team Members and Affiliations	Resources
<u>NASA Personnel:</u> <u>IPP POC:</u> <u>External Co-I(s):</u> <u>External Collaborators:</u>	<u>IPP \$ =</u> <u>Non-NASA Resources =</u> <u>Program/Project \$ or contribution =</u> <u>Partnering Mechanism:</u> (SAA, SBIR III)

My Contribution with Seed Fund Call for Proposals

- Participated in the development of the solicitation process
- Assisted in review of draft proposals for Seed Fund Call
- Provided input on strengths and weaknesses of proposals
- Suggested changes as a result of determined strengths and weaknesses

TecFusion Forum

- **Purpose:** Connect NASA personnel and contractors with Small Business Innovative Research (SBIR) funded companies that have produced important advances in technology areas of interest to KSC.
- **Prime Contractors Involved:** United Space Alliance (USA) & Harris Corporation
- **Outcome:** Possible Opportunities for collaborations, licensing, or other partnering mechanisms with KSC's Prime Contractors.

My Contributions with the NASA KSC TecFusion Forum

- Involved in the preparation and planning of the two day event
 - Attended teleconferences to discuss scheduling and agendas.
 - Went on tours of KSC to become familiarized with the Center.
- Assisted with the operation of the hardware system used to review the presentation.
- Assisted with troubleshooting of small business presentations.
- Hosted VIP Tours of Kennedy Space Center Facilities for visiting companies.

Summary

- What I have learned...
 - The concepts behind both branches of the Planning, Operations, and Partnerships Division.
 - Planning & Operations Branch and Technology Programs and Partnerships Branch
 - How to incorporate engineering and technology in a business setting.
 - Overall I had a great learning experience and summer that I will remember for a lifetime.
 - **Thanks to the Kennedy Space Center, the MUST Program, the workers in both offices, and Special thanks to my Mentor... Mr. Tommy Mack.**